



U.S. Fish & Wildlife Service Sacramento Fish & Wildlife Office



Species Account FEW-FLOWERED NAVARRETIA *Navarretia leucocephala* ssp. *Pauciflora*

CLASSIFICATION: ENDANGERED

Federal Register Notice 62:33029; June 18, 1997
ecos.fws.gov/docs/federal_register/fr3091.pdf (83 KB))

STATE LISTING STATUS AND CNPS CODE:

This subspecies was listed as threatened by the California Department of Fish and Game in January 1990. The California Native Plant Society has placed it on List 1B (rare or endangered throughout its range).

CRITICAL HABITAT: None designated

RECOVERY PLAN: Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon; December 15, 2005.

www.fws.gov/sacramento/es/recovery_plans/vp_recovery_plan_links.htm

5-YEAR REVIEW: Completed June 2008. No change.
ecos.fws.gov/docs/five_year_review/doc1935.pdf

DESCRIPTION

Few-flowered navarretia is a small annual herb belonging to the phlox family (Polemoniaceae). It can be branched or not. It grows only 1 to 4 centimeters (0.4 to 1.6 inches) tall, but is twice as wide due to branches originating near the base of the stem.

The stem is white with purple streaks and has few hairs. Although the majority of the stem is very slender (less than 0.5 millimeter [0.02inch] thick), the portion at and just below ground level is two to four times as thick.

Narrow leaves are 1 to 2.5 centimeters (0.4 to 1.0 inch) long and may have a few narrow lobes. Each flower head is 4 to 10 millimeters (0.16 to 0.39 inch) wide and contains between 2 and 20 pale blue or white flowers.

Tiny flowers occur in clusters and are white or pale blue. Flowering occurs in June. The fruit of is a papery capsule that breaks open in an irregular pattern only when it is wet. Each capsule contains one or two reddish-brown seeds that stick together until water washes them apart.

This species grows with and can be easily confused with several other navarretias. Among the closely related ones are the endangered many-flowered navarretia (*Navarretia leucocephala* ssp. *plieantha*) and Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*).



Few-Flowered Navarretia
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If you have a photo of the species growing wild, and would be willing to let us use it, contact our External Affairs Division at the number listed below.

Few-flowered navarretia forms hybrids with many-flowered navarretia. The hybrids do not fit well into any established subspecies. See Hickman (1993) in General Information about California Plants, below, for a detailed description of the various subspecies of *Navarretia leucocephala*

DISTRIBUTION

Few-flowered navarretia is found in vernal pools on volcanic substrates, usually volcanic ash, in the north coast ranges of California. Volcanic ash vernal pools are considered to be a rare and endangered habitat in California. This habitat has always been rare.

Historically, nine populations have been known from Lake and Napa counties. Currently, only three populations remain, all in Napa County. The total gross acreage of the remaining populations is just less than 12 acres. Supporting grassland watershed is about 150 acres. The elevation range is 1,400-2,800 feet.

U.S.G.S. 7.5 Minute Quads: Capell Valley (499B) 3812242, Yountville (500A) 3812243, Lower Lake (533A) 3812285, Clearlake Highlands (533B) 3812286, Whispering Pines (533C) 3812276, Kelseyville (534A) 3812287, The Geysers (534D) 3812277

THREATS

Continuing specific threats involving potential loss or fragmentation of habitat include: various disturbances of the volcanic ash soils, which accelerates erosion at Manning Flat, off-road vehicle use continuing to degrade certain habitat, erosion problems from attempts to drain habitat, land-use conversions for residential development or agriculture threatening all but two occurrences, possible inappropriate grazing practices at certain sites and possible population reductions of important insect pollinators.

REFERENCES FOR ADDITIONAL INFORMATION

[General references about California plants](#)

www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

McCarten, N. 1985. A survey of *Navarretia pauciflora* and *Navarretia plieantha* (Polemoniaceae): Two rare endemics plant species from the vernal pools of the California North Coast Ranges. Endangered Plant Program, Dept. Fish and Game.

For larger images and permission information see CalPhotos <http://calphotos.berkeley.edu/>. That link also contains images of other, closely related navarretias, including the many-flowered subspecies.

VERNAL POOLS:

Vernal pools are a unique kind of wetland ecosystem. Central to their distinctive ecology is their ephemeral nature. Vernal pools fill with water temporarily, typically during the winter and spring, and then disappear until the next rainy season.

In California, where extensive areas of vernal pool habitat developed over a long geological timeframe, unique suites of plants and animals have evolved that are specially adapted to the unusual conditions of vernal pools. Fish and other predators are among species that have been excluded evolutionarily by annual filling and drying cycles of vernal pools.

The prolonged annual dry phase of the vernal pool ecosystem also has prevented the establishment of plant species typical of more permanent wetland ecosystems.

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